NBII Northern Rockies Information Node

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Background

The National Biological Information Infrastructure (NBII) <www.nbii.gov> is an electronic information network that provides access to biological data and information on our nation's plants, animals, and ecosystems. Data and information maintained by federal, state, and local government agencies; non-government organizations; and private-sector organizations are linked through the NBII gateway and made accessible to a variety of audiences including researchers, natural resource managers, decision-makers, educators, students, and other private citizens.

Implementation of the NBII is being accomplished through the development of nodes that serve as interconnected entry points to the NBII and the information held by partners. These nodes function as fully digital, distributed, and interactive systems that focus on developing, acquiring, and managing content on a defined subject area (thematic nodes) or a geographic region (regional nodes). One of the regional nodes being developed in 2001 is the Northern Rockies Information Node.

Node Focus

The Northern Rockies Information Node focuses on an area covered by the Rocky Mountain Range from Wyoming north into Canada. It includes the Greater Yellowstone Ecosystem and the area around Glacier National Park known as the Crown of the Continent. The node is being developed as a joint venture of Montana State University and the U.S. Geological Survey (USGS) Northern Rocky Mountain Science Center. The node will complement, not duplicate, a wide range of efforts by agencies and institutions to serve regional information through geographic information systems.

What Will It Do?

The Northern Rockies Information Node will provide access to scientific information about biological and other natural resources on public lands in the region. It will do this in the context of natural forces and changing land use patterns.

- The node is an information resource that will be useful to local, state, and federal agencies; universities; businesses; non-governmental entities; educators; and the general public in addressing issues concerning management of public lands.
- The node is being designed to provide easy access to authoritative scientific information concerning natural resources on public lands, to help support better decisions by resource managers and others.
- Outreach and educational values of the node will be developed and disseminated through the university's Burns Telecommunications Center and Big Sky Institute.
- Building the node involves research into cause and effect relationships that determine the condition of wildlife and other resources on public lands in the Northern Rockies, and development of predictive models that can be used through the node to explore potential outcomes of resource management options.

Improving Access to Information

Scientific studies result in large amounts of data, but often they are difficult to access. Currently no central site provides access to spatial, geological, ecological, and water-related data and information in this region.

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- The node is developing as a distributed system with links to a wide range of scientific information resources. Among them are the University of Wyoming's Spatial Data and Visualization Center and the Montana State Library's Natural Resource Information System.
- Each of these Web sites serves spatial data but with different geographic extents and purposes, with the node emphasizing decision support for management of natural resources on public lands, using data integrated across scientific disciplines.
- The node covers several states, with links to providers of single-state data.

From Data to Knowledge

Data have little value on their own to resource managers, scientists, students, and the public. To be more useful, scientific data and information must be transformed into knowledge by processing, analysis, modeling, and visualization.

- Initially, the node focuses on the development of selected data sets and Web-based tools that address readily identifiable needs for natural resource management. These include regional climate data, keys to diverse sets of data related to the Greater Yellowstone Area, and digital maps that provide a spatial context for the data.
- In addition to increasing the utility of both historical and newly collected data, the node will provide decision support tools to address specific management and science needs of partners and clients.

Who Will Benefit?

The node will develop as a virtual meeting place to understand and work toward solutions to resource management challenges for public lands in the Northern Rockies.

- Academic institutions, non-governmental organizations, and government agencies all conduct scientific investigations that are relevant to the management of natural resources on these lands.
- Collaboration in building the node will be extended to state and federal natural resource agencies, county governments, and non-federal entities, as well other universities in the region.
- Natural resource-based private industries will be sought as partners in developing the node.
- Ultimately, the people of Montana, Wyoming, and Idaho will benefit from educational tools and knowledge provided through the node concerning natural resources and public lands in the Northern Rockies.

For More Information

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